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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,893	07/29/2003	Chul-Min Kim	11281-007-999	5553
20583	7590	04/22/2005	EXAMINER	
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			DOAN, JENNIFER	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,893	Applicant(s) KIM ET AL.	
	Examiner Jennifer Doan	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-11 and 13-19 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>082304</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicants' election with traverse of group I in the reply filed on 01/24/05 is acknowledged. The traversal is on the ground(s) that the applicants believe to search and examine claims in Groups I and II would not be a serious burden on the Examiner. This is found persuasive; therefore, the election/restriction in the previous Office Action is withdrawn.

Thus, all pending claims 1-19 will be searched and examined together.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 08/23/2004, have all been considered and made of record (note the attached copy of form PTO-1449).

Drawings

4. The drawings, filed on July 29, 2003, are accepted.

Specification

5. There are no brief descriptions of figures 5A, 5B and 5C.

The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph.

Appropriate correction is required.

Applicants' cooperation is requested in correcting any other errors of which applicants may become aware in the specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al. (U.S. Patent 6,876,804).

With respect to claim 12, Chen et al. disclose a method for controlling a spin imparted on an optical fiber comprising the steps of imparting circumferential spin on a

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high-temperature optical fiber drawn from a preform (column 5, lines 14-16); obtaining dispersion pattern data peculiar to the spun optical fiber from scattered light naturally generated from the spin imparted on the optical fiber and controlling rate and period of the spin imparted on the optical fiber on the basis of the obtained dispersion pattern data (column 2, lines 60-62 and column 6, lines 4-40).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (as cited above) in view of Seto et al. (JP-05024878).

With respect to claim 1, Chen et al. (figure 4) disclose a method for monitoring a spin imparted on an optical fiber comprising the steps of imparting a spin on a high-temperature optical fiber which is drawn from a preform (column 5, lines 14-16); displaying the photographed dispersion pattern, wherein a form of the spin imparted on the optical fiber is monitored based on the displayed dispersion pattern (column 2, lines 60-62 and column 6, lines 4-31).

Chen et al. do not disclose a camera for photographing a dispersion pattern peculiar to the spun optical fiber. However, Seto et al. (figure 1) disclose a camera (5) for observing and photographing an optical fiber of the preform during drawing. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Chen device with a camera (accordance with the teaching of Seto et al.) for the purpose of beneficially providing a better fiber images.

With respect to claim 2, Chen et al. (column 5, lines 44-46) disclose the method, wherein the monitoring of dispersion pattern is targeted for a bare optical fiber, which is not yet coated with polymer.

With respect to claim 3, Chen et al. (figure 4 and column 5, lines 14-43) disclose the method, wherein the monitoring of dispersion pattern is targeted for an optical fiber which is in a state between a preform heating process and an optical fiber cooling process.

Allowable Subject Matter

11. Claims 4-11 and 13-19 are allowed.

The prior art fails to disclose or reasonably suggest a method for making an optical fiber and controlling bi-directional symmetry of alternating symmetrical spins imparted on an optical fiber, comprising the step of photographing dispersion patterns peculiar to the spun optical fiber; wherein first and second dispersion patterns are photographed respectively at a first torque point in a clockwise direction and a second torque point in a counterclockwise direction which is symmetric to the first torque point, rearranging a center of the guide roller relative to the drawing axis and the rotating axis so that the number of the photographed first dispersion patterns is coincident with the number of the photographed second dispersion patterns; and determining bi-direction symmetry of the imparted spin by comparing the photographed first and second dispersion patterns.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshizawa (JP 06227838) discloses an optical fiber preform is heated and drawn.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Doan

Patent examiner

April 15, 2005